



**Asia-Pacific  
Economic Cooperation**



QUALITY ASSURANCE  
of ONLINE LEARNING

**TOOLKIT**

APEC Project: HRD 14 2016S

Produced by  
The University of Melbourne  
Victoria 3010  
Australia  
Tel: (61) 3 9035 5511

For  
Asia-Pacific Economic Cooperation Secretariat  
35 Heng Mui Keng Terrace  
Singapore 119616  
Tel: (65) 68919 600  
Email: [infor@apec.org](mailto:infor@apec.org)  
Website: [www.apec.org](http://www.apec.org)

© 2019 APEC Secretariat

APEC#219-HR-01.5



**Australian Government**  
**Department of Education**



**Australian Government**  
**Department of Education**  
**Tertiary Education Quality**  
**and Standards Agency**



**THE UNIVERSITY OF**  
**MELBOURNE**

This discussion paper and toolkit were commissioned by the Department of Education and Training and the Tertiary Education Quality and Standards Agency (TEQSA), with research assistance from the Melbourne Centre for the Study of Higher Education at The University of Melbourne.

The views expressed in the document are not necessarily the views of the Australian Government.

# Contents

Introduction	4
Domain 1: Leadership and management	10
Domain 2: Staffing profile and professional development	12
Domain 3: Review and improvement	14
Domain 4: Resources	21
Domain 5: Student information and support	23
Domain 6: Student experience	25
Domain 7: Curriculum design	27
Domain 8: Assessment and integrity	29
Domain 9: Learning outcomes	32
Conclusion	34
Resources	35

# Introduction

This toolkit has been developed in response to the growth of online and blended education in higher education in APEC economies over the last decade.

This toolkit has been developed in collaboration with a wide range of stakeholders. In 2016, experts from government, quality assurance agencies and higher education institutions from 13 APEC economies gathered together at the APEC Quality Assurance of Online Learning Workshop to discuss and refine the draft toolkit. Further validation workshops were scheduled in Viet Nam, Indonesia and Mexico in 2017. All of this feedback has been instrumental in preparing this document.

As online education methods grow and diversify, the need to ensure that these new forms of delivery support rather than reduce the value, quality and validity of higher education qualifications is important. Additionally, as the use of online technologies becomes more integrated into traditional teaching and learning, the need to recognise the outcomes of higher education regardless of delivery mode has become a priority.

In many economies, agencies are developing approaches towards the quality assurance of online and blended education. For some economies, online education remains on the fringe of systems that account for higher education quality. Other approaches consider online and blended learning within already established quality assurance systems.

This toolkit supports an integrated model of quality assurance whereby each domain can apply to any mode of delivery. However, this toolkit provides an approach to the quality

assurance of each domain that is specific to online or blended education.

Together, the domains represent a holistic vision of a 'quality culture' for online and blended education.

This toolkit is informed by current and emerging research into institutional practices for online and blended education. The quality of institutional practice is stimulated through external or regional quality assurance systems that recognise the specific approaches to assessing the standard of online and blended delivery.

A broad suite of frameworks, rubrics, assessment criteria, and systems for the quality assurance of higher education have also been considered in developing the toolkit. These include frameworks, like the following four domestic approaches, that assess online and blended programs, and others that assess programs regardless of mode.

## Case Studies

### Quality Matters: The United States

Quality Matters is a non-profit organisation comprised of online quality assurance experts working to promote and improve the quality of online education and student learning domestically and internationally. The Quality Matters Framework is a recognised peer review framework that measures quality in blended and online course design and uses the Quality Matters Rubric to examine course quality and provide feedback for improvement to the institution. Each course submitted to Quality Matters will be reviewed by a team comprised of a Master Reviewer and two Peer Reviewers, one of whom is external to the organisation.

#### Quality Matters Framework

The Quality Matters Framework assesses against eight quality standards:

- » Course Overview and Introduction
- » Learning Objectives (Competencies)
- » Assessment and Measurement
- » Instructional Materials
- » Course Activities and Learner Interaction
- » Course Technology
- » Learner Support
- » Accessibility and Usability

Source: [www.qualitymatters.org](http://www.qualitymatters.org)

### Asian Association of Open Universities (AAOU) Quality Assurance Framework

The Asian Association of Open Universities (AAOU) is a non-profit organisation of higher learning institutions that are primarily concerned with open and distance education. It strives to widen the educational opportunities available to all people in Asia and to improve the quality of the institutions in terms of their educational management, teaching and research.

The AAOU Quality Assurance Framework has nine components and each component includes statements of best practice. The nine components include:

- » Policy and Planning
- » Internal Management
- » Learners and Learners' Profiles
- » Infrastructure, Media and Learning Resources
- » Learner Assessment and Evaluation
- » Research and Community Services
- » Human Resources
- » Learner Support Program Design and Curriculum Development
- » Course Design and Development

Source: [aaou.ouhk.edu.hk](http://aaou.ouhk.edu.hk)

## Approach to accreditation of online learning programmes: Hong Kong, China

Given the emerging demand of quality online learning programmes in Hong Kong, China, the Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ) has developed the following approach to accredit both local and non-local online programmes.

### **In an online learning programme, the following aspects need to be examined:**

**(a) Teaching and Learning.** An operator will have to provide evidence that the online or blended learning experience is effective to deliver the intended learning outcomes and programme content. At the same time, programme development staff must be able to explain the rationale for the choice of the teaching and learning methods and their relevance for online delivery.

**(b) Student Assessment.** With the use of technology to monitor the outcomes of student learning, an operator will have to provide evidence that there is an appropriate balance of formative and summative assessment, that the assessment methods are adequate to demonstrate achievement of the intended learning outcomes and required standards, and that students' progress is tracked and that timely feedback is provided. Assessment results must be evaluated through learning analytics to assess the attainment of the learning outcomes and whether the academic standards are upheld. To ensure that a student who is enrolled in the programme is also the same student who completes the assessment tasks, an operator will have to provide evidence that it has in place an effective mechanism and infrastructure to authenticate the identity of students.

**(c) Student/Learner Support Service.** An operator will have to ensure that the electronic learning management platform is available, viable and reliable to provide students with administrative, academic and technical support at times that suit students' learning at flexible hours and locations.

**(d) Staffing and Staff Development.** An operator will have to provide evidence that staff can master the electronic learning platform to design course content for online teaching, learning and assessment. Moreover, staff will need the capacity to interpret learning analytics to evaluate the effectiveness of the teaching, learning and assessment activities. For staff who do not have the necessary skills, an operator will have to provide evidence that these staff are given development opportunities.

**(e) Financial and Physical Resources.** For online delivery, sufficient resources related to content development, technology infrastructure, continuous development of all relevant staff, new academic/teaching, administrative and technical staff, hosting and maintenance are needed. Therefore, an operator will have to provide evidence that there is sufficient funding for start-up and on-going investment in the electronic learning platform for online delivery. For on-going maintenance, an operator will have to provide evidence that the electronic learning platform is available and reliable to support students' learning in a timeframe that fits their learning patterns.

**(f) Quality Assurance.** With the use of technology, an operator should be able to capitalise on the learning analytics to gain insight into different aspects of student's learning for continuous improvement. As such, an operator will have to provide evidence that it uses learning analytics to evaluate the effectiveness of the online learning programme, including the extent to which the learning goals are achieved, and uses the results of its evaluations to enhance the attainment of the learning outcomes.

Source: [www.hkcaavq.edu.hk/en/services/accreditation](http://www.hkcaavq.edu.hk/en/services/accreditation)

## An integrated approach to quality assurance: Malaysia

The Malaysian Quality Assurance Agency (MQA) has developed an integrated code of practice on criteria and standards for higher education in Malaysia regardless of the mode of delivery. This code of practice is benchmarked against international good practices and is nationally accepted by stakeholders through consultations. The code provides a guideline of general requirements in nine key areas.

### The Nine Malaysian QA Criteria

Vision, Mission, Educational Goals and Learning Outcomes	Curriculum Design and Delivery	Assessment of Students
Student Selection and Support Services	Academic Staff	Educational Resources
Programme Leadership and Administration	Programme Monitoring and Review	Continual Quality Improvement

Source: [www.mqa.gov.my/PortalMQAv3/red/en/qa.cfm](http://www.mqa.gov.my/PortalMQAv3/red/en/qa.cfm)

## Blended Learning for Quality Higher Education: Selected Case Studies on Implementation from Asia-Pacific

UNESCO Bangkok in partnership with The Education University of Hong Kong (EdUHK) launched a two-year project to build the capacity of higher education institutions (HEIs) for blended learning. Blended Learning for Quality Higher Education presents a framework and self-assessment tool developed from a holistic view of building institutional capacity to drive, sustain, and scale up blended learning. It incorporates case studies from experienced HEIs in the region to demonstrate how the framework and its dimensions could be operationalised, and how the gaps identified in the self-assessment exercise could be addressed.

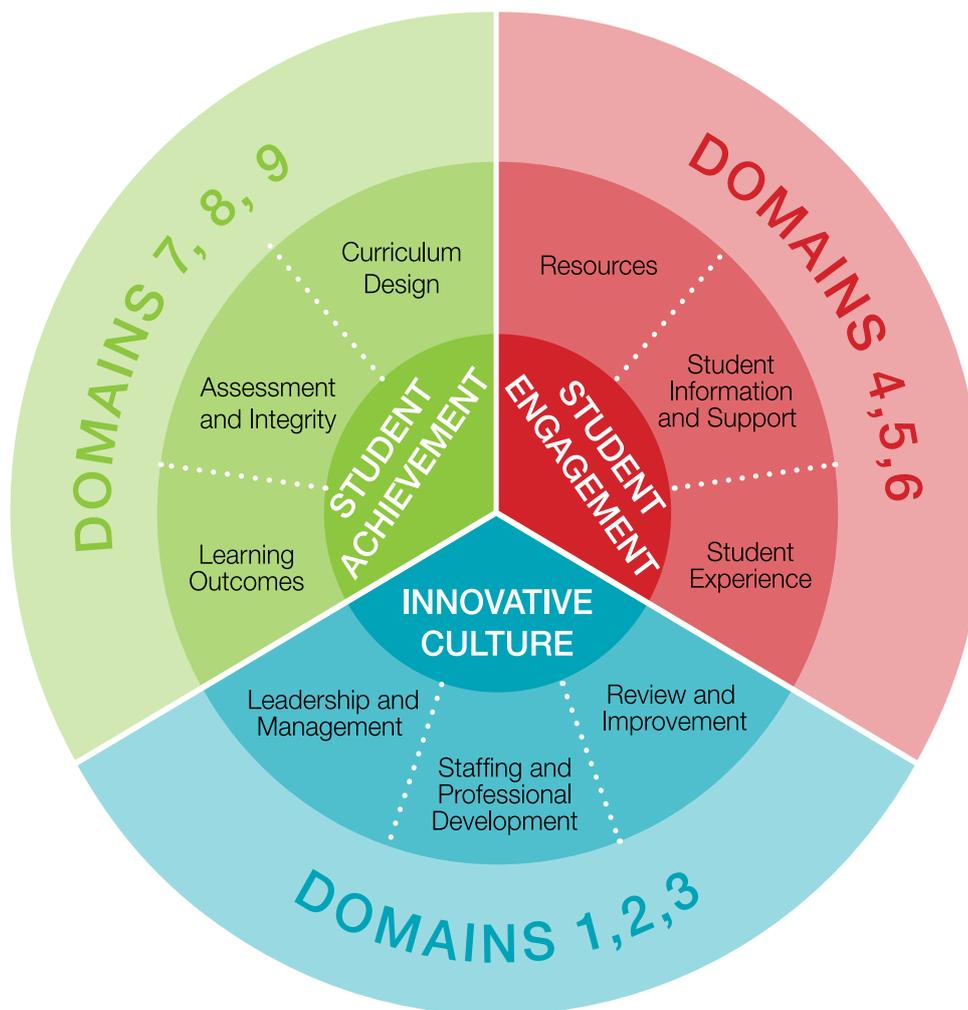
Source:

<http://bangkok.unesco.org/content/blended-learning-quality-higher-education-selected-case-studies-implementation-asia-pacific>

This toolkit and its domains have been developed to stimulate conversations and help guide the development of consistent approaches to the QA of online education at the policy, regulatory and institutional level. The toolkit comprises the following five elements:

- » Domains – represent assessable areas of institutional practice
- » Principles – provide a statement of good practice
- » Research findings – summarise recently tried and tested quality models
- » Focus points – challenge institutional practices
- » Evidence – demonstrates the application of the principles in practice.

**Figure 1: Domains and their contexts**



Source: Adapted from Ossiannilsson 2012

## Quality domains

The domains (Figure 1) represent areas of institutional practice that quality assurance practitioners can assess in relation to the delivery of online and blended education. They represent distinct operational but interconnected facets of higher education practice that can be assessed by external agencies and integrated into internal institutional systems. The domains are consistent with findings from meta-analysis of quality models that showed most frameworks relate to three areas and six dimensions.

As the domains are generated from areas of institutional practice that in themselves do not have a hierarchical ranking, the domains should not be given a hierarchical order. That is, the domains are all equally important and the numbering in this toolkit is for ease of reference rather than an implied order or hierarchy.

Finally, the three areas of:

- » student achievement
- » student engagement; and
- » innovation culture

in the inner circle are not static but apply across all domains.

## Tools and resources

This toolkit includes a number of tools in the form of existing resources, examples and case studies, to assist economies to develop a consistent approach to QA of online education. These are not intended to capture all available resources and may be added to over time. Further, an additional domain could be added that refers specifically to cultural and/or contextual issues of the economy utilising the toolkit.

# DOMAIN 1: Leadership and management

## Principle

Leadership and management actively support the realisation of quality online and blended education by developing strategic plans, creating performance indicators and by influencing the culture of quality within an institution.

## Research findings

- » Without active support from leaders for the quality of online or blended programs, institutions will be unlikely to achieve status as a quality provider of online education.
- » Realising a culture that values innovation in teaching and learning through technology requires influence from leaders.
- » Leaders and managers at all levels must make decisions to invest in staff, infrastructure and systems for online and blended learning.

## Focus points

- » Do the institutional missions, goals and objectives include the delivery of quality online or blended education?
- » Are leaders aware of how online or blended programs are quality assured?
- » Do key documents, such as institutional quality assurance policies, provide for online or blended delivery?
- » Is there a dedicated leadership position or organisational unit responsible for the quality or management of online or blended education?

## Evidence

- » Strategic plans and other key documents include a vision for providing quality online education.
- » A leader, who is expert in the field of online education, is appointed to the staff.
- » Institutional budgets reflect investment in online infrastructure or systems.
- » Timely actions are undertaken in response to cyclical reviews of online or blended programs.
- » The institution has appropriately dedicated staff to deliver online learning capability.

# Framework example: Domain 1

A framework for assessing institutional vision for online education

Vision and Philosophy					
	Institutional Vision for ICT in Education	Underlying Philosophy for Teaching and Learning with ICT	Needs of Schools and Society	Formulation and Ownership of ICT in Education Vision	Review of ICT in education Vision
<b>Undeveloped</b>	Absence of articulated institutional vision for ICT in education.	Absence of underlying philosophy for teaching and learning with ICT.	Absence of needs and situation analysis of schools and society.	Absence of staff involvement in the formulation of ICT in education vision.	Absence of review of ICT in education vision.
<b>Fundamental</b>	Focuses ONLY on the use of ICT to support existing culture, policies and practices.	Traditional notions of teaching and learning with ICT that are grounded in behaviourist/ cognitivist paradigm.	Needs of schools ONLY based on their existing culture, policies and practices constrain the formulation of the institutional vision for ICT in education.	Staffs are involved in the formulation of the ICT in education vision but do not have ownership of the vision.	Review of ICT in education vision is based on pre-determined work schedules.
<b>Proficient</b>	Institutional vision focuses on driving changes in culture, policies and practices mediated by ICT.	Underlying philosophy is based on progressive notions of teaching and learning with ICT that are grounded in constructivist/ social constructivist paradigm.	Changing needs of schools and society are considered in the formulation of the institutional vision for ICT in education; that is, the vision supports changes in schools that partially meet societal needs.	Staff are involved in the formulation of the ICT in education vision and have developed a sense of ownership of the vision.	Review of ICT in education vision is reactive in essence. That is, it reacts to changing needs of schools and society.
<b>Innovative</b>	Institutional vision is being studied and emulated by other institutions.	Underlying philosophy is based on emerging notions of teaching and learning with ICT that are grounded in knowledge creation paradigm.	Changing needs of schools and society are full integrated in the institutional vision for ICT in education; that is, the vision leads changes in schools that meet societal needs.	Staffs are empowered in the formulation of the ICT in education vision. That is, staffs are contributing members of an evolving and dynamic vision.	Review of ICT in education vision is proactive and visionary (anticipating/pre-emptive) in essence. That is, it triggers reviews in other institutions.

Source: Lim C P, Chai C S and Churchill D (2010)

# DOMAIN 2: Staffing profile and professional development

## Principle

Staff involved in the teaching, management and support of online and blended education have the appropriate qualifications, knowledge and skills required to support the achievement of student learning outcomes.

## Research findings

- » An appropriate staffing profile is critical to ensure that students studying online achieve appropriate learning outcomes.
- » Online teaching requires specific skill sets that differ from traditional face-to-face teaching, including appropriate technological and communications skills.
- » As more teaching staff participate in online education the perceptions about the quality of online education increases.
- » The outcomes of academic professional development can ultimately contribute to organisational change that influences positive perceptions about online learning.

- » Online students require technical and academic support. They value immediate and personal interactions with individual staff online.

Figure 2: Barriers to consider provides examples of barriers to effectively teaching courses online.

## Focus points

- » Are professional development strategies designed to help staff increase online student engagement?
- » Is the staffing profile aligned to the achievement of articulated learning outcomes in all delivery modes?
- » Are technical and academic staff members trained to appreciate both the pedagogical and technical aspects of online learning?
- » Do the online environments facilitate interaction between support staff, academic staff and students?

**Figure 2: Barriers to consider**

### Barriers to teaching in an online and blended format

In some institutions – and even in some regions – barriers may exist that limit the adoption of the relevant technological skills within the teaching profession.

These barriers may include:

- » Underlying beliefs about teaching that exclude acceptance of the online format
- » Difficulties changing teachers' deep rooted perceptions about the art of teaching
- » The difficulty for teachers in keeping up with the pace of technological developments
- » Underestimation of the time and energy involved in providing academic interaction with online students
- » Underestimation of the time and energy taken to bring about sustainable change.

## Evidence

- » Staff induction, training and professional development opportunities targeted to online learning are formalised through institutional policies and initiatives.
- » Staff contracts allow time for student access and engagement in online environments.
- » Workforce planning documents identify staff with specific online education skills and experience.
- » Budgets account for academic and technical support staff for online education and include allocated resources for professional development.
- » Student evaluations of online learning include feedback about the quality of teaching.
- » Staff members are recognised for excellence in teaching and learning in online settings and in engaging students in an online environment.
- » Investment in online professional development is measurable and results in improvements in staff expertise in teaching online.

### Case study: Domain 2

#### Example of online professional development (USA)

##### University of Oregon: E-Teacher Scholarship

E-Teacher is a US Department of State (US DOS) program, funded by the Bureau of Educational and Cultural Affairs and managed by Office of English Language Programs. E-Teacher courses and the professional development exchange were administered by the University of Oregon's (UO) American English Institute (AEI) throughout December 2015. All decisions to award scholarships and professional development exchange places and the criteria related thereto were made and established by US DOS.

Source: [eteacher.uoregon.edu](http://eteacher.uoregon.edu)

##### Learning to Teach Online

The Learning to Teach Online project is a free professional development resource designed to help teachers from any discipline, whether experienced in online teaching or not, gain a working understanding of successful online teaching pedagogies that they can apply in their own unique teaching situations.

Source: [olt.gov.au/resource-learning-teach-online-unsw-2011](http://olt.gov.au/resource-learning-teach-online-unsw-2011)

# DOMAIN 3: Review and improvement

## Principle

Performance data and a broad range of feedback from stakeholders, including students, are fed into planned cyclical reviews.

## Research findings

- » As online and blended education becomes an integrated feature of higher education, regular review and improvement is necessary to build institutional reputation, attract students and ensure the achievement of student learning outcomes.
- » Quality assurance models for online and blended education can be integrated into established internal quality frameworks with additional specific approaches according to mode of delivery.
- » Review and improvement involves a whole-of-institution approach that uses information from all aspects of service delivery, teaching and learning, staffing and management.
- » Online and blended students leave digital footprints and evidence of learning activities that can be collected for internal quality assurance purposes.
- » Collection of data requires subsequent analysis and continuous improvement actions.

## Focus points

- » Are online and blended programs regularly reviewed in relation to access and usability, course design, and the provision of information? Do the reviews evaluate support services, resources and staffing?
- » Are planned activities scheduled and undertaken for the collection of stakeholder feedback?
- » Are institutional leaders, managers and staff aware of quality assurance processes for online and blended courses?

- » Are students encouraged to provide continuous feedback for online and blended education? Do students actually participate in internal student surveys?
- » Is there a delegated department, unit or individual responsible for institutional data collection, analysis and reporting?
- » Do leaders and managers receive reports demonstrating the review and improvement of online and blended education within the institution?
- » Various challenges must be considered when reviewing and improving online courses. Figure 3: Challenges to meet provides an overview of these challenges.

## Evidence

- » Internal quality assurance is governed by an institutional policy with delegated authority.
- » Internal audit documents planned review cycles and data collection periods.
- » Staff members have the appropriate skills and experience to identify and act on issues related to the provision of online learning environments, including collection of online data within learning management systems.
- » Reporting of review and improvement actions taken as a result of feedback is communicated broadly to staff and students.
- » Minutes of the academic board meetings (or equivalent) demonstrate that feedback and data have informed course changes and improvements within acceptable timeframes.
- » Figure 4: Quality assurance web illustrates the key elements that need to be considered in the development of a quality assurance framework.
- » Other evidence may include incorporation of detailed national policies for development and improvement (if there is a national policy).

**Figure 3: Challenges to meet**

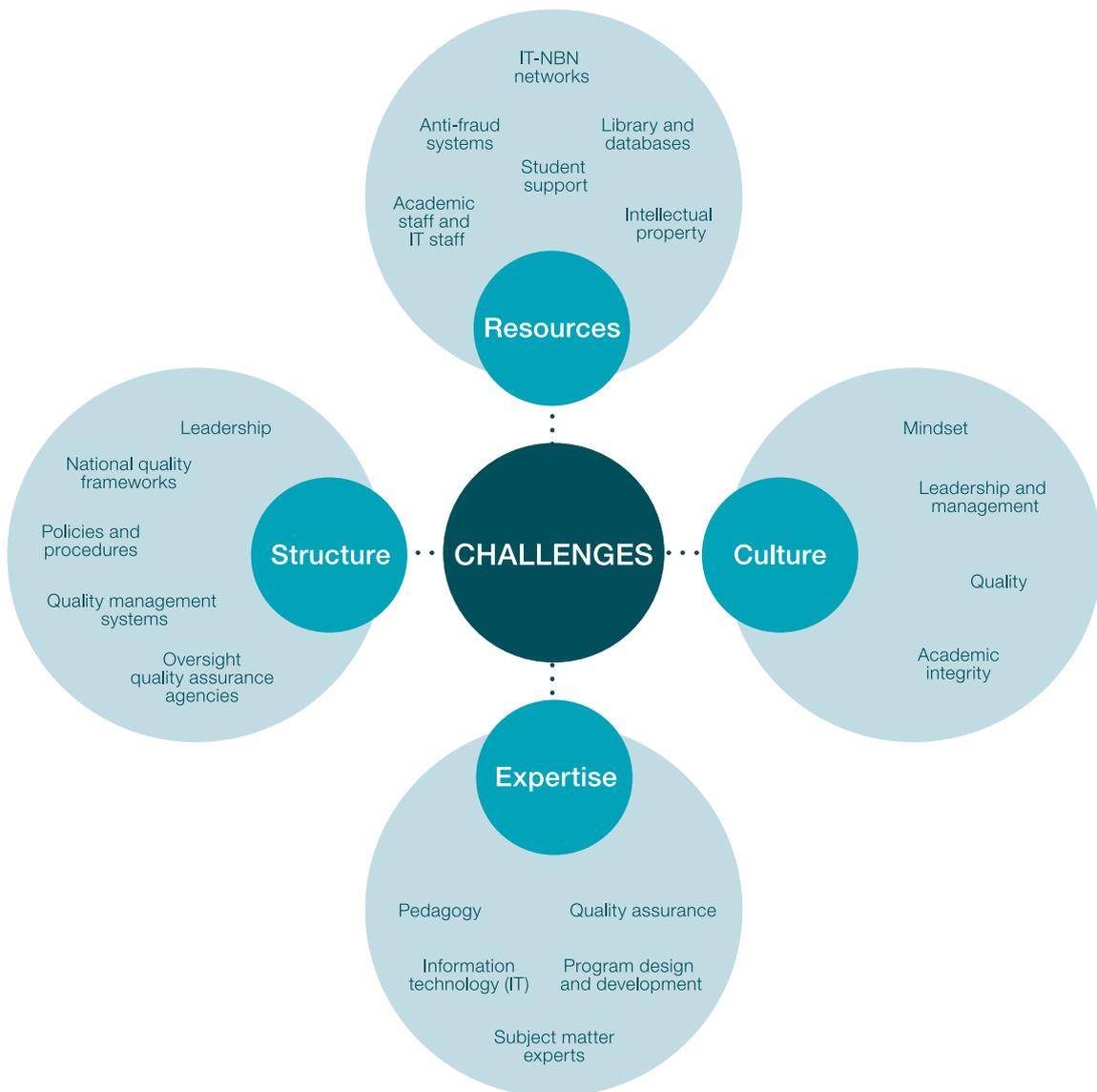
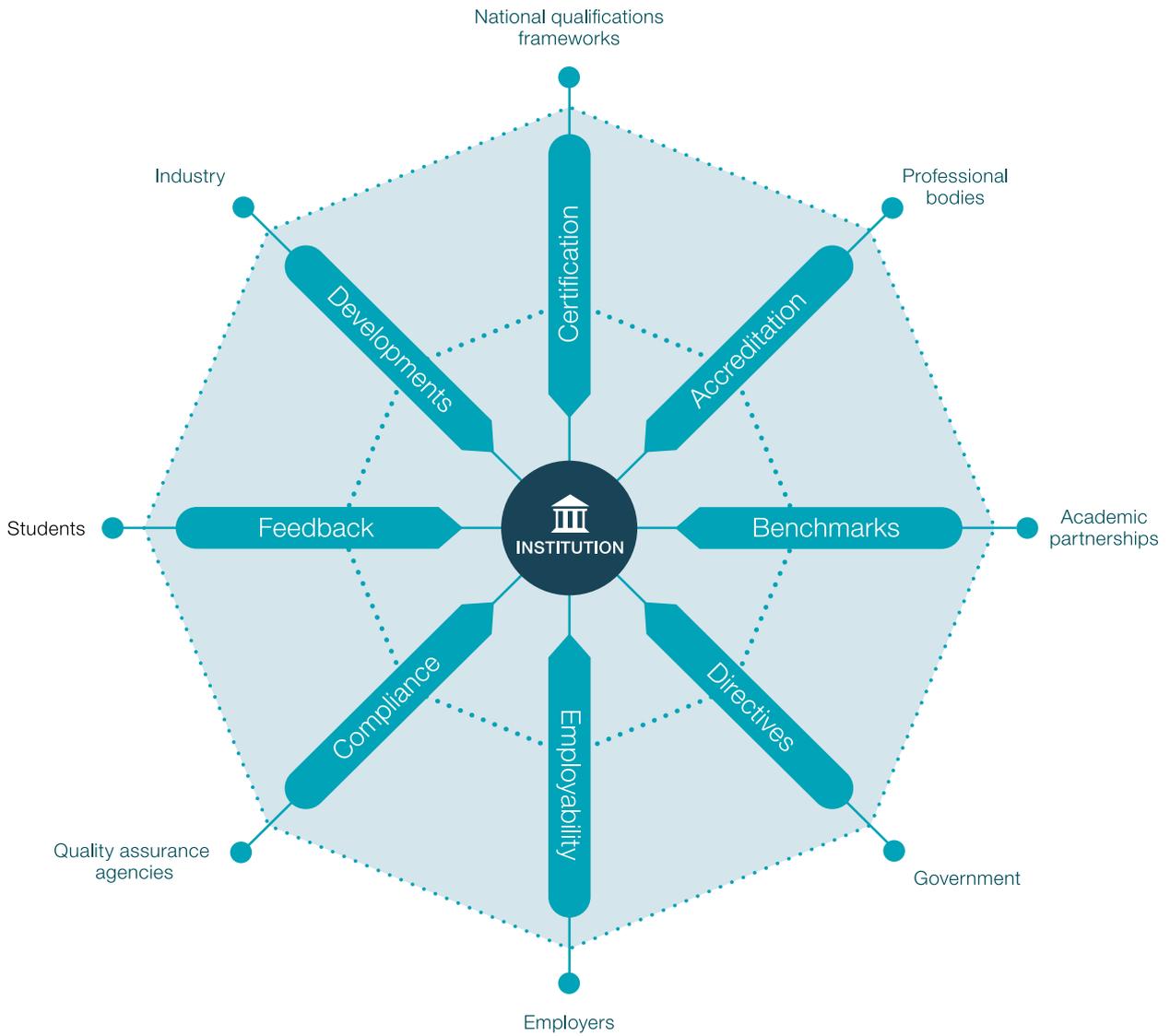


Figure 4: Quality assurance web



## Case Study: Domain 3

### Online Education: Mexico

In Mexico, evaluation of online learning is carried out by the Inter-Institutional Committees for the Evaluation of Higher Education (CIEES).

The main points for evaluation are:

1. Assessment of regulations and academic program planning
2. Assessment development and program results
3. Evaluation of the academic process and their inputs
4. Evaluation of the academic administration

Source: [www.ciees.edu.mx/index.php/ingles/whats](http://www.ciees.edu.mx/index.php/ingles/whats)

### Approaches to the quality assurance and recognition of online learning: Indonesia

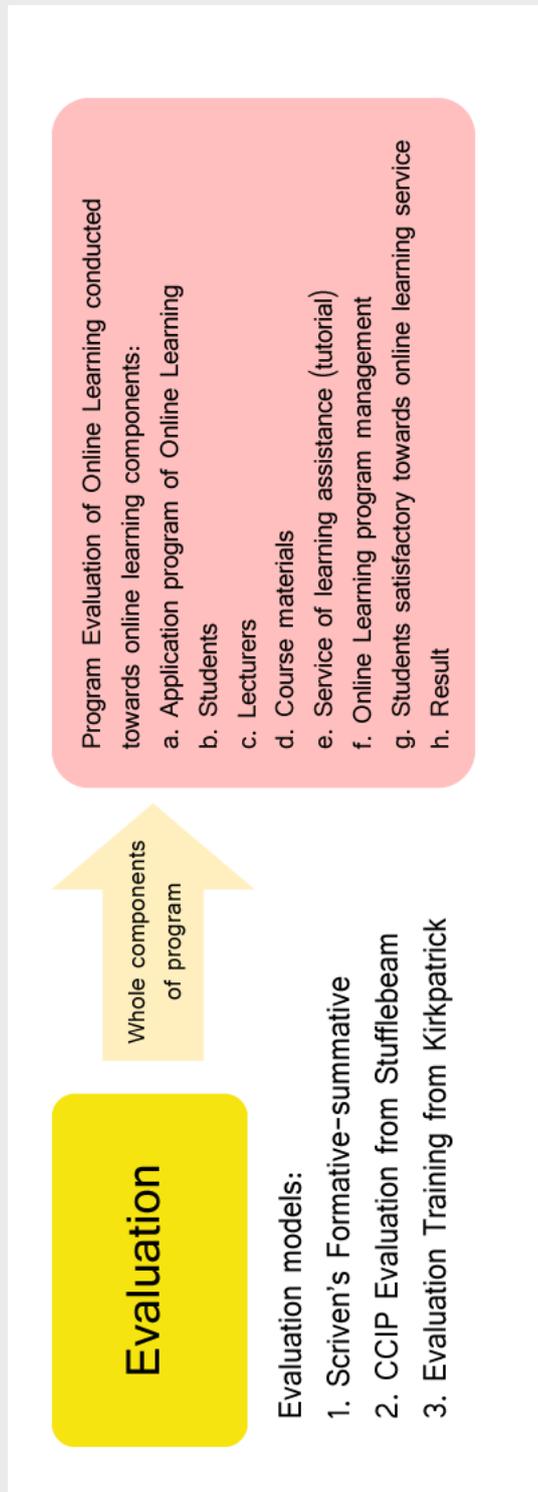
The National Accreditation Agency for Higher Education (NAAHE/BAN-PT) accredits academic programs in Indonesia's Open University (Universitas Terbuka). The NAAHE uses the one integrated quality assurance framework for both face-to-face and online delivery. However, specific elements considered for online learning include how governance takes account of online certification agencies; student completion rates; professional staff for developing online modules and student costs.

In addition to accreditation from NAAHE, Universitas Terbuka has developed a quality assurance system (SIMINTAS) used to ensure the quality of all products and activities. Simintas UT was originally adopted from the Asian Association of Open Universities Frame Work Quality Assurance (QA AAOU Frame Work), which consists of nine components and 107 points in the form of quality policy statement of good practice.

Source: RISTEK DIKTI, Indonesia

## Example: Domain 3

Program evaluation – Ministry of Research, Technology and Higher Education: Indonesia



continued...

## Example: Domain 3 (continued)

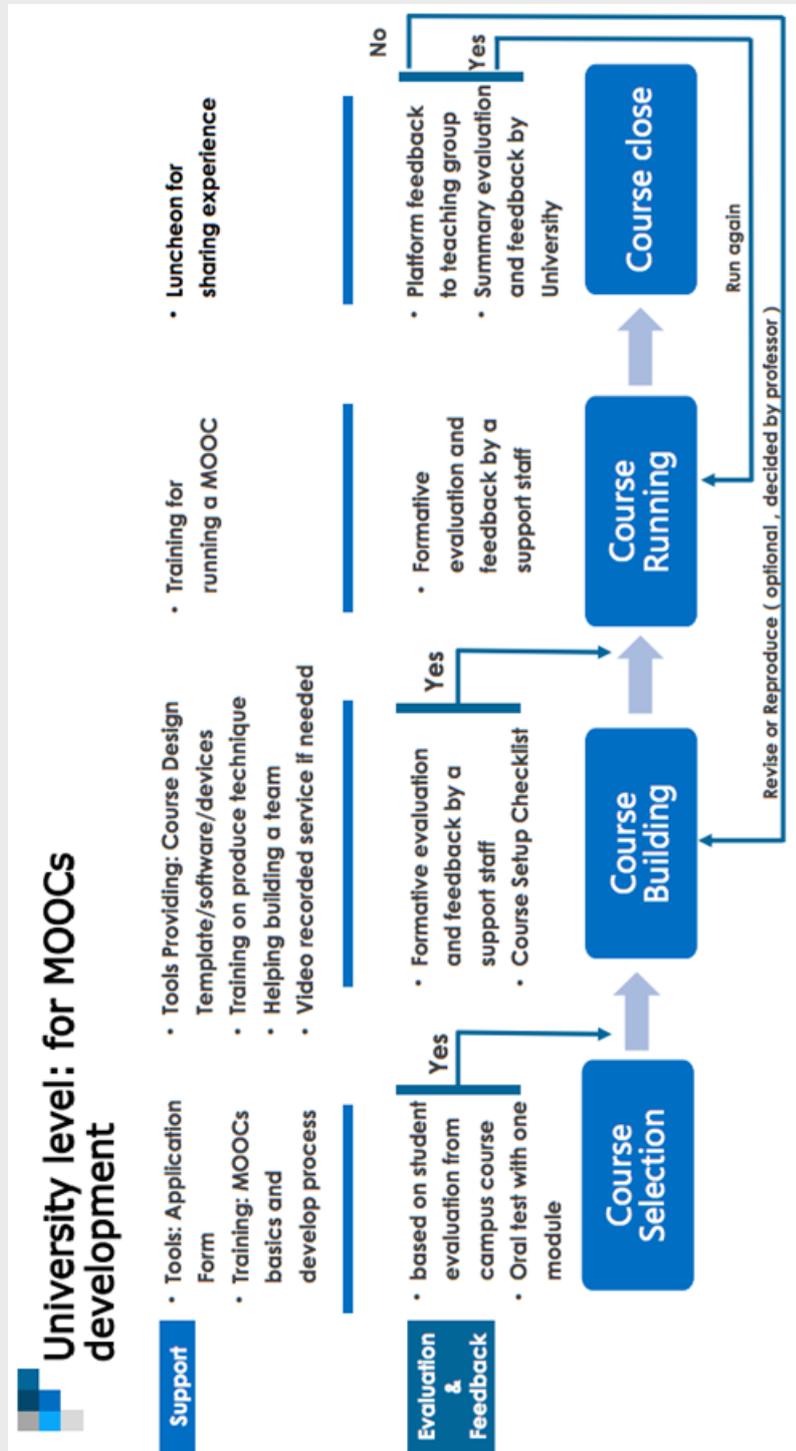
The model for program evaluation of online learning programs is based on an amalgam of three models as listed:

- » Donald L Kirkpatrick's Learning Evaluation Model – Kirkpatrick, D L 1994 Evaluating training programs: the four levels, San Francisco, Berrett-Koehler
- » Daniel Stufflebeam's CIPP Model (Context, Input, Process, Product) – Stufflebeam, Daniel L and Zhang G 2017 The CIPP Evaluation Model: How to Evaluate for Improvement and Accountability, Guildford, USA
- » Michael Scriven's Goal-Free Evaluation Approach – Scriven, Michael 1991 Evaluation Thesaurus, Sage Publications, USA

Source: Ministry of Research, Technology and Higher Education, Indonesia

## Example: Domain 3

The following represents Peking University's process for developing and reviewing Massive Open Online Courses (MOOCs).



Source: Peking University

# DOMAIN 4: Resources

## Principle

The necessary technical and digital infrastructure is sufficiently resourced to enable accessible, reliable and compatible provision of online education for all students regardless of location.

## Research findings

- » The ability to deliver quality online education requires an appropriate and reliable technical infrastructure.
- » Variability of internet access may be a result of limited domestic or regional infrastructure.
- » Institutional learning management systems and other technology-based learning tools, including non-institutional propriety systems, are increasingly being used in online and blended learning environments.
- » Increasingly students bring their own devices into the classroom which presents great opportunities for the use of technology to support learning.

## Focus points

- » Are there provisions in budgets and forecasts for investment in technical infrastructure to support online and blended learning?
- » Are students able to access compatible computer systems and networks on and off campus?
- » Do current and prospective students have enough information to decide if online study is suited to their needs?
- » Does the institution offer appropriate and adequate internet access to all students?
- » Does online and blended learning involve more than just the upload of content to a student learning system?
- » Are appropriate learning resources and student information available online?

- » Use of open educational resources?

## Evidence

- » Institutional budgets account for investment in appropriate technical infrastructure.
- » Subscriptions or licences to online educational resources and software tools are purchased.
- » On-campus spaces support the use of online technology, including adequate outlets for charging devices and reliable Wi-Fi connections.
- » Agreements with Distributed Resource Centres for testing or invigilating elements of the curriculum that requires trained face-to-face assessors or exams.
- » Resources are shared and developed across faculty.

## Benchmarking Resource: Domain 4

### Australasian Council on Open, Distance and e-learning (ACODE) Benchmarks for Technology Enhanced Learning

The ACODE Benchmarks (2014) have been developed to assist institutions in delivering a quality technology enhanced learning experience. There are eight benchmarks, each of which can be used as a stand-alone indicator, or used collectively to provide a whole of institution perspective.

The ACODE benchmarks can assist institutions in benchmarking aspects of online learning to facilitate a culture of review and improvement.

The online 'Benchmarking Tool' provides institutions with an easy to use interface to house their self-assessment and consolidated data related to ACODE Benchmarks for Technology Enhanced Learning. The tool enables aggregation of benchmark activity over time for reflection and includes:

- » Institution/unit profile
- » Institution educational technology snapshot
- » View of all institutions profile and technology snapshot
- » Benchmark self-assessment and team consolidation
- » Institutional benchmark comparison
- » View of benchmark Performance Indicator ratings for each institution
- » Anonymised reporting export.

Source: [www.acode.edu.au/pluginfile.php/579/mod\\_resource/content/4/TEL\\_Benchmarks.pdf](http://www.acode.edu.au/pluginfile.php/579/mod_resource/content/4/TEL_Benchmarks.pdf)

# DOMAIN 5: Student information and support

## Principle

Mechanisms to identify students who require additional technical, educational and personal support are implemented and monitored; and each student is aware of all support systems in place. Clear information about online study is reliable, accessible and regularly updated for both current and prospective students.

## Research findings

- » The most important indicator of quality online learning based on student feedback is access to staff. Students value the opportunity to contact staff by email or phone and seek staff support.
- » The use of digital technologies offers new opportunities for providing direct and fast feedback to students.
- » Without clear guidelines emphasising the quality of participation, students may engage in strategies that are counterproductive to achieving intended learning outcomes.
- » The role of student support with academic staff for online students is as important as face-to-face experiences.
- » Online students may face specific and different learning challenges compared to other face-to-face cohorts and support for students must take into consideration a broad range of services including technical, academic and personal.
- » All students must have access to clear information about the requirements and demands of online education including how to prepare.

## Focus points

- » Do students studying online have access to institutional student support services? Are the communication methods suitable for online and blended learning students?
- » Do institutional websites, platforms and learning management systems contain accessible and clear information that directs students to a range of support services?
- » Does the institution have mechanisms to identify students who may be at risk through analytic applications that monitor log-in patterns and through other demographic information including language or technical proficiency?
- » Can students use online platforms to contact staff?
- » Do students have access to the correct information about an online course prior to admission and do students have the requisite skills to be admitted to the online course?

## Evidence

- » Policies determine when educational interventions are needed to support students at risk of failure or discontinuation of studies.
- » Data on student engagement and performance monitors student retention in online and blended learning.
- » Students provide feedback on student support mechanisms.
- » Guidelines for online student behaviour and etiquette foster positive interaction.
- » Chat rooms and other interactive features are moderated by staff.
- » Students who have discontinued or transferred out of the program complete exit surveys.
- » Student feedback relates to the provision of online learning and the adequacy of information provided before and during study.

## Case Study: Domain 5

### Web Content Accessibility Guidelines

An important consideration for the use of technology in higher education in Australia is the ability of students to be able to access and participate in online learning regardless of any disability. While the use of technology can help open up access to education for students with certain disabilities, it is important to ensure that learning resources and activities are developed in such a way that they are compatible with assistive technologies such as screen readers. The Web Content Accessibility Guidelines provide guidance on the minimum accessibility standards that educational technology applications and systems should meet, but individual economies may also have their own standards.

Source: [www.w3.org/WAI/intro/wcag.php](http://www.w3.org/WAI/intro/wcag.php)

### Student support: Deakin University, Australia

Focus points:

- » Access to online support services: do students have access to the appropriate support services as they progress through their online learning activity?
- » Channels of online communication: are these channels open and easy for the student to use and to use to communicate, is the communication regular and relevant?
- » Accessible and clear online information about support: is support easy to access and use?

Student experience:

- » Online course design and assessment that incorporates meaningful and authentic interaction and engaging collaboration opportunities
- » Online tools/platforms that enable student/staff and student/student interaction

Another valuable resource is Deakin's free online learning course to prepare students before enrolling into one of their Cloud Campus courses. Once students complete the initial two week course they can choose to continue their studies and earn a full postgraduate degree through Deakin.

Deakin also includes biographies of people who have chosen to study online to demonstrate how (especially those who studied professional postgraduate degrees) managed their work and family commitments and how the course they studied provided the necessary flexibility to allow them to complete it.

Source: [www.deakin.edu.au/courses/study-online](http://www.deakin.edu.au/courses/study-online)

# DOMAIN 6: Student experience

## Principle

Each student has the opportunity to interact socially and academically with staff and other students and feedback of student experience is acted on through monitoring.

## Research findings

- » Isolation for online or blended students can be offset by interactive group activities including online forums, virtual meetings and online chat rooms.
- » While often not the focus of instructors or academics, positive student experience can determine whether a student returns to study.
- » A sense of belonging is integral to a student identifying with the institution and engaging with others.
- » As provision for online education grows, promoting a positive student experience can influence a student's choice of course.

## Focus points

- » Do course design and assessment methods incorporate a range of interactive features that engage students in group work and encourage personal interaction with other students?
- » Does the information for the course include information about engagement opportunities and promote activities that will foster a positive student experience?
- » Are students aware of opportunities to engage beyond their studies, including learning communities?

## Evidence

- » Activities for interaction are embedded in the course design.
- » Each student has access to other students' photos, names, and contact details.
- » Digital platforms are designed to distinguish between academic and more socially oriented aspects of the student experience.
- » Regular updates and communication is sent and received between institutions and online students.

## Case Study: Domain 6

### Student surveys in Australian Universities

Many providers use an array of surveys at the completion of a course to survey a student's experience of the course, for example at both Griffith University and at Swinburne University students undertake surveys at the completion of each unit of a course and the University uses this information as a continuous improvement mechanism in improvement of teaching and learning and to develop and innovate course design and delivery.

Sources:

[swinburne.edu.au/student/surveys](http://swinburne.edu.au/student/surveys)

[intranet.secure.griffith.edu.au/work/surveys/student-surveys](http://intranet.secure.griffith.edu.au/work/surveys/student-surveys)

## Case Study: Domain 5

Deakin University and student experience

### WHAT WE EXPECT AT DEAKIN - PREMIUM QUALITY

- Consistently high quality constructive and timely **feedback on assessment** that is authentic;
- High production value and engaging **learning resources**, available in a range of modes to suit user bandwidth;
- **Engaged communities** for learning or socialising, face to face on screen;
- **Proactive coaching and advising** for all students, with more access in the early units;
- Multiple ways and times for students to **start or advance** in their course;
- **Quality indicators** evidenced by comprehensive analytics that show student activity and progress; and
- **Unit teams** which make optimal use of academic and professional staff time to **support student success**.

Deakin University CRICOS Provider Code: 00113B



Deakin has many resources that help students to ensure they have a supported experience online. For example, Deakin employs student success coaches that assist and support students via regular Skype and email correspondence.

Deakin also provides student support, including Peer Assisted Study Sessions (PASS) delivered through an online webinar, study mentors and more general support staff.

Source: [deakin.edu.au/courses/study-online](http://deakin.edu.au/courses/study-online)

# DOMAIN 7: Curriculum design

## Principle

Curriculum design is based on sound educational principles and provides a coherent and interactive series of learning experiences that develop knowledge and skills aligned to learning outcomes appropriate to the qualification level.

## Research findings

- » Designing online or blended programs requires the integration of educationally robust approaches towards curriculum design with technical expertise that can structure the learning resources and activities coherently.
- » While many online applications and toolkits have been developed to guide the development of online programs, the need to ensure that the design aligns with specific learning outcomes is vital.
- » Designers should have educational rationales for each element of the curriculum design that reflect a balance of learner activities and assessment aligned to developing and demonstrating learning outcomes.
- » Discussion and collaboration must be consciously incorporated into the design of online and blended programs and be properly facilitated by instructors.
- » Figure 5 provides points to consider regarding current research findings.

## Focus points

- » Does the institution have clear standards for courseware development?
- » Is each unit of study designed with the learning outcomes of the program and the qualification level in mind?

- » Does the design reflect pedagogical approaches to curriculum design, not just technical design?
- » Are innovative, interactive and engaging features embedded in the online and blended curricula?
- » Is the curriculum design coherent? Does it develop disciplinary and generic skills progressively over the duration of the course?

## Evidence

- » Teaching and learning plans articulate the role of curriculum design in the development of online and blended education.
- » Courseware development processes and/or quality standards are used during the development of new courses.
- » Course development committees or equivalent have members who are able to effectively assess the quality of online or blended programs.
- » Employer or industry representatives are consulted so that the program design aligns with workforce needs and expectations.
- » The curriculum has been reviewed by external experts and piloted for design issues. Feedback is noted and implemented where necessary.

Student feedback about the quality of the program is sought regularly. Course updates incorporate this feedback. **Figure 5: Points to consider**

## Figure 5: Current findings

Research shows that well-developed blended programs are designed to:

- » Enhance student learning outcomes
- » Have lower attrition rates than fully online courses
- » Be flexible and meet a range of student needs
- » Optimise the best elements of online and traditional face-to-face delivery modes
- » Incorporate practical, hands-on learning such as work placements or laboratory work.

## Case Study: Domain 7

Using technology to improve curriculum design. (JISC, UK)

JISC is the UK's higher, further education and skills sectors' not-for-profit organisation for digital services and solutions. JISC provide resources to assist institutions implement and enhance technology enabled learning including specific aspects such as curriculum design.

JISC supports the sector in encouraging the adoption and use of digital technologies within UK teaching, learning and research. JISC's vision is for the UK to be the most digitally advanced higher and further education and research nation in the world. JISC provides UK universities and colleges with shared digital infrastructure and services.

Source: [www.jisc.ac.uk/guides/using-technology-to-improve-curriculum-design](http://www.jisc.ac.uk/guides/using-technology-to-improve-curriculum-design)

# DOMAIN 8: Assessment and integrity

## Principle

A range of policies and mechanisms ensure that assessment tasks for students studying online are clearly communicated, effectively moderated, and allow opportunities for students to demonstrate the program learning outcomes.

## Research findings

- » Low student participation rates are recorded when collaborative online activities and group projects are not assessed.
- » Assessment guidelines need to manage and support the specific online environment and interactions for group dynamics.
- » Institutions are developing mechanisms, including facial recognition software and key stroke identification features, to minimise cheating.
- » Assessment submission processes include plagiarism detection.
- » Blended learning can incorporate capstone or work experience placements in an intensive mode.
- » Discipline-specific and generic skills, including oral communication and interpersonal skills, can be developed in online and blended environments.

## Focus points

- » Does the institution offer a range of assessments which are aligned to specific learning outcomes and that include discipline-specific and generic skills?
- » Does assessment cumulatively develop learning outcomes and provide students with an opportunity to demonstrate learning outcomes?
- » Are assessment rubrics mapped to program learning outcomes and graduate attributes?

- » Do examination boards (or equivalent) consider online performance data in relation to other cohorts?
- » Do course development committees (or equivalent) approve assessments for online learning?

## Evidence

- » Policies govern online assessments, including academic integrity, moderation and progression.
- » Assessments are mapped against learning outcomes at the program and qualification level.
- » Clear guidelines about the nature of assessments and the grading rubrics are provided to students.
- » Performance data demonstrates online and blended students are attaining suitable levels of achievement.
- » Institutions respond to student feedback and complaints about assessment.
- » Policies and procedures are in place to manage and uphold the integrity of assessment.
- » A rigorous process is in place to monitor and evaluate assessment data for continuous improvement purposes.
- » Assessment activities should utilise the capability of learning technologies.

## Case Study: Domain 8

### Assessment equivalency

#### Swinburne University of Technology, Australia

Swinburne University of Technology in Melbourne, Australia, is ranked amongst the top 3% of universities in the world, with over 30,000 students. 25% of its student cohort is studying online via Swinburne Online.

Swinburne online graduates receive the same testamur and are measured by the same learning outcomes as their on-campus counterparts, however to ensure responsiveness and adaptability across different modes of delivery, the university has developed assessment equivalency guidelines. The guidelines, adapted from Cumming's comparability framework (2003), provide a structured approach to ensure equivalence in assessment practices and tasks between on-campus and online delivery.

### Assessment equivalency guidelines

Assessment tasks may be contextualised for mode of delivery however the following areas must remain identical across on-campus and online delivery:

1. The purpose of the assessment task – either formative or summative
2. The learning outcomes assessed in each assessment task
3. The requirement for divergent or convergent thinking
4. The weighting of each assessment task
5. The word limit for each assessment task
6. The requirement to use literature in the assessment task
7. The requirement to complete the task individually or as part of a team/group
8. The do-ability of the task (e.g. AQF level)

Source: [www.swinburneonline.edu.au/how-online-study-works](http://www.swinburneonline.edu.au/how-online-study-works)

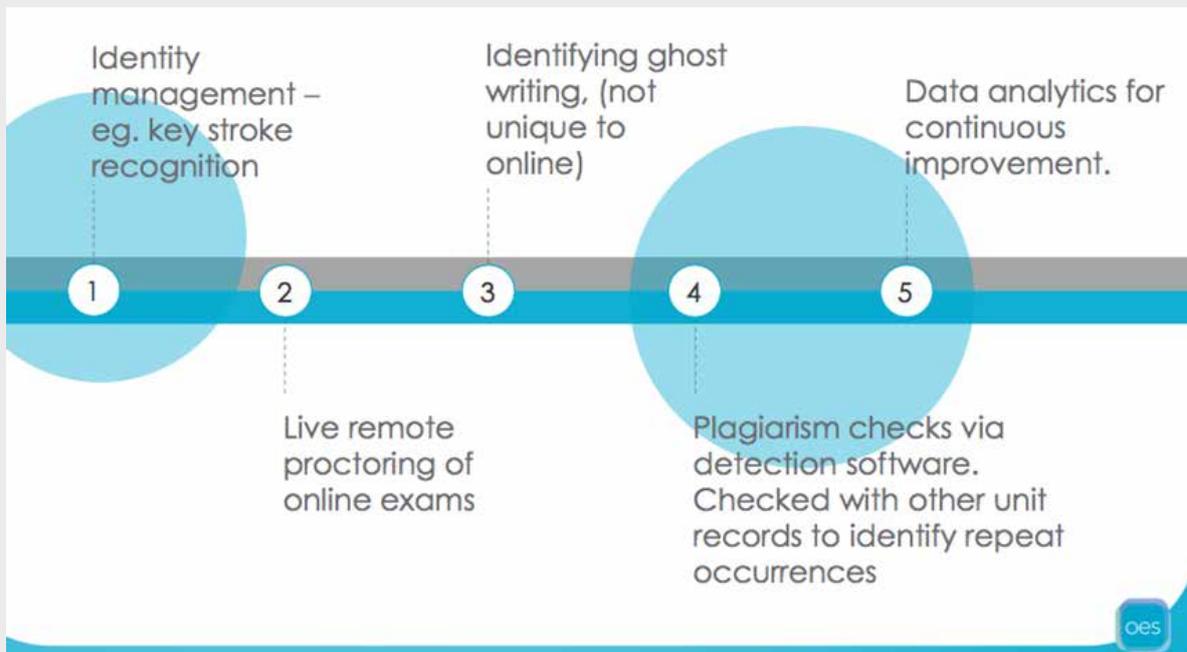
## Resource: Domain 8

### Online Education Services (OES), Australia

OES was established 'to challenge and advance the online education industry, providing a new student-centric approach to adult education'.

In partnership with various Australian Higher Education Providers, 'OES provides the expertise to create engaging online learning experiences for students who are not catered for by traditional campus-based offerings'.

### Assessment and Integrity



### Online Exam Service

OES provides an online exams service. This service is a live supervised online exam, enabling regional and remote students to log in and complete their exams in a convenient location.

“Students no longer have to go to an exam location and no supervisors are required – it is all done online.”

Source: [www.oes.edu.au](http://www.oes.edu.au)

# DOMAIN 9: Learning outcomes

## Principle

Learning outcomes for students studying online are equivalent to face-to-face cohorts for the same qualification level and are assessed with rigour.

## Research findings

- » Learning outcomes are statements that describe what students are expected to know, are able to do, and are able to apply in a range of situations.
- » The learning outcomes for online and blended programs should be equivalent to the outcomes for face-to-face students.
- » Numerous studies demonstrate no inherent barrier to the achievement of learning outcomes for online and blended education.
- » There have been global shifts in quality assurance policy and practice towards student and graduate outcomes which put less emphasis on institutional inputs as a measure of quality.
- » The development of learning outcomes is supported by qualifications frameworks at the domestic or regional level regardless of mode.
- » Measuring learning outcomes for online and blended programs facilitates comparative benchmarking and continuous improvement practices.

## Focus points

- » Are the learning outcomes for online and blended programs clear, accessible and realistic?
- » Are the learning outcomes communicated to prospective students, current students and staff?
- » Are the learning outcomes aligned to a qualification framework, relevant standards, professional accreditation requirements and workforce needs?

- » Do the learning outcomes for online and blended programs encompass specific subject matter knowledge as well as generic skills such as problem-solving, collaborative, communication, analytical and ICT skills?
- » Is the development of learning outcomes evident in the curriculum and assessment?
- » Are assessment tasks mapped to each learning outcome?

## Evidence

Student information and/or online handbooks include program learning outcomes.

- » Course development and assessment policies, documentation and processes demonstrate how the learning outcomes were developed.
- » Course content and assessments reference frameworks, standards and other requirements.
- » Student performance data is collected, analysed and validated to ensure that each student who graduates has demonstrated the program learning outcomes.
- » Cohort analysis is undertaken to determine the performance and progression of students studying in online and blended environments compared with face-to-face students.
- » Benchmarking activities with similar external programs is undertaken to ensure learning outcomes are consistent across the sector.
- » Feedback from graduates and employers demonstrates positive graduate outcomes including employment, professional recognition and further learning.

Figure 6: 'Real world' skills in a virtual classroom details how work-integrated learning can form a component of online education.

## Case Study: Domain 9

### Japan's integrated QA system and learning outcomes

In Japan, the National Institution for Academic Degrees and University Evaluation (NIAD-UE) evaluates universities against the Standards for Evaluation and Accreditation of Universities. The ten Standards do not consider online or distance learning as distinct aspects of an institution's operations and can be assessed under the Standards framework. For example, Standard 6 Learning Outcomes, does not differentiate between face-to-face or online mode:

#### Learning outcomes

The outcomes, e.g., knowledge, understanding, skills, and attitudes that students are expected to acquire as a result of educational programs. Today, when international trends are shifting away from "teacher-centered education" towards "student-centered education," universities are required to specify explicitly the intended learning outcomes that students are expected to acquire and place more emphasis on "what abilities students will attain as a result of the curriculum" rather than "what the university teaches students." Each learning outcome must be specific and measurable or assessable. It is expected that universities will enhance social accountability through making publicly available the assessment of learning outcomes and the results thereof. In order to fulfill its fundamental mission of developing those who can uphold society in the future, each university is urged to state explicitly the intended learning outcomes for all students for the entirety of their undergraduate programs, regardless of their major fields, to monitor learning outcomes through appropriate methods of measurement, to implement assessments focusing on learning outcomes, and to improve the quality of educational contents and methods so that students may fully achieve the outcomes.

Source: Glossary of Quality Assurance in Japanese Higher Education

## Figure 6: Skills development

Opportunities for online and blended students to undertake work experience or placements and to develop oral communication skills can be provided through a range of design options including course structure and assessment.

For example:

- » Blended programs can incorporate a face-to-face component during the program for work experience, research projects or a capstone experience.
- » Online learning environments can bring distance learners and instructors together to develop interview skills, oral communication and presentation skills and other collaborative activities.
- » Often students are undertaking the theoretical components of a course online, and the applied components of the course are conducted either face-to-face or by completing a work integrated learning component of the course. For example, an Education degree at Swinburne Online can be undertaken 'with a combination of practical experience via on-the-job placements coupled with flexible, online theoretical study.'

Source: [swinburneonline.edu.au/online-courses/education](http://swinburneonline.edu.au/online-courses/education)

## Conclusion

This toolkit provides a starting point for the quality assurance of online education for those APEC economies seeking to develop a framework. Furthermore, it can be used as a platform for regional cooperation in the assurance of online education. It establishes a range of criteria that can help quality assurance agencies assess online and blended programs.

Institutions that take an integrated approach to quality assurance can also use the criteria to refine their key performance indicators and improve the standard of online education they deliver. This is because the toolkit provides an important evidence base for reporting and assessment. In short, it helps institutions to measure the quality of their online and blended programs.

The toolkit has been developed to promote a culture of quality within the global education sector. To establish and develop a culture of quality, economies and institutions alike need to define and implement quality assurance mechanisms.

For this to occur, key questions need to be asked:

- » How do quality frameworks integrate the assurance of online learning?
- » How do quality assurance agencies assess online programs?
- » How do institutions benchmark online programs?



Culture is more than a series of mechanisms. It is a mindset that is crafted by leaders and driven by organisational practices. This toolkit poses questions in order to provoke conversation among leaders. The next step is for them to tailor the answers to their needs.

# Resources

- ACODE 2014 Benchmarks for technology enhanced learning Canberra [http://www.acode.edu.au/pluginfile.php/579/mod\\_resource/content/3/TEL\\_Benchmarks.pdf](http://www.acode.edu.au/pluginfile.php/579/mod_resource/content/3/TEL_Benchmarks.pdf)
- Altbach P G, L Reisberg et al 2009 Trends in global higher education: Tracking an academic revolution, Boston College, Center for International Higher Education
- Allen I E and Seaman J 2013 Changing course: Ten years of tracking online education in the United States, Babson Park MA, Babson Survey Research Group
- APQN 2008 Quality assurance arrangements in higher education in the broader Asia-Pacific region, Australia: Asia Pacific Quality Network [http://www.aei.gov.au/AEI/GovernmentActivities/BrisbaneCommunique/Quality\\_Assurance\\_pdf](http://www.aei.gov.au/AEI/GovernmentActivities/BrisbaneCommunique/Quality_Assurance_pdf)
- Asian Development Bank 2011 Higher education across Asia: An overview of issues and strategies, Mandaluyong City: Asian Development Bank
- ASEAN University Network 2014 ASEAN Credit Transfer System, retrieved 17 March 2014 <http://acts.ui.ac.id/>
- Australian Communications and Media Authority 2015 Communications report 2013–14 series: Report 1 – Australians’ digital lives, Canberra: Commonwealth of Australia.
- Basak S, Wotto M, Bélanger P 2016 A Framework on the Critical Success Factors of E-Learning Implementation in Higher Education: a review of the literature
- Bernard et al 2004 How Does Distance Education Compare to Classroom Instruction? A Meta-Analysis of the Empirical Literature
- Christensen C M, Horn M B, Caldera L and Soares L 2011 Disrupting College: how disruptive innovation can deliver quality and affordability to postsecondary education, Center for American Progress, Innosight Institute <http://eric.ed.gov/?id=ED535182>
- Cummings R J 2003 Equivalent assessment: Achievable reality or pipedream, paper presented at the ATN 2003 Education and Assessment Conference, Adelaide
- Dziuban C, Hartman J and Moskal P 2004 Blended Learning, EDUCAUSE Center for Applied Learning <http://net.educause.edu/ir/library/pdf/ERB0407.pdf>
- Eaton J S 2016 Quality, E-Learning and Alternative Providers of Higher Education in Cross-Border Higher Education and Quality Assurance Rosa M J, Sarrico C, Tavares O & Amara A (eds) Issues in Higher Education series, Palgrave MacMillan UK
- ESG 2015 Standards and Guidelines for Quality Assurance in the European Higher Education Area, Brussels
- Edgecombe N, Cormier M, Bickerstaff S, Barragan N 2013 Strengthening developmental education reforms: evidence on implementation efforts, Scaling Innovation Project, CRCC Working Paper No. 61
- E-learning Quality Model The Swedish National Agency for Higher Education
- Ewan C 2016 Salient issues for TEQSA arising from ‘Higher Education Standards in a Disaggregated Learning Environment’ unpublished excerpt from OLT Report May 2016
- Gonzalez-Pose P 2015 Global perspectives on the recognition of higher education qualifications, presentation at the Council for Higher Education Accreditation International Quality Group annual meeting, Washington DC
- Grifoll J, Huertas E et al 2010 Quality Assurance of E-learning, Helsinki, Finland
- Howland J L, Jonassen D H and Marra R M 2012 Meaningful learning with technology Pearson, NJ
- Huisman J, Adelman C, Hsieh C C, Shams F and Wilkins S 2012 ‘Europe’s Bologna process and its impact on global higher education’ in Deardorff D K, de Wit H, Heyl J D & Adams T (eds) The SAGE Handbook of International Higher Education Thousand Oaks: Sage Publications (pp. 81–100)
- Iwata J 2013 ‘A new era of learning efficacy on a planet of smarter systems’ in Barber M and

- Rizvi S (eds) *Asking more: The path to efficacy* Pearson, London pp. 23–27
- Jenkins J 2000 'Training teachers for a connected environment' in *Open Praxis* 2 (pp. 8–14)
- Jung I S 2005 'A review of policy and practice in virtual education: In the context of higher education in S. Korea' in *Educational Studies* 47 (pp. 111–123)
- Jung I and Latchem C 2012 *Quality assurance and accreditation in distance education and e-learning*
- Hanna D 2003 'Building a leadership vision: 11 strategic challenges for higher education' *Educause Review*, July/August
- Khan B H 2001 'A framework for Web-based learning' in B H Khan (Ed) *Web-based training* Englewood Cliffs, NJ: Educational Technology Publications
- Kirkpatrick, D L 1994 *Evaluating training programs: the four levels*, San Francisco, Berrett-Koehler
- Kristoffersen D 2015 *Regulation and quality assurance of online education*, paper given at the *Educating Online in South East Asia regional workshop*, Kuala Lumpur
- Lapsley R et al 'Is Identical Really Identical? An Investigation of Equivalency Theory and Online Learning' in *Journal of Educators Online* 5.1 (2008): n1
- Latchem C 2012 *Quality assurance toolkit for open and distance non-formal education*, Commonwealth of Learning
- Latchem C 2016 *Open and Distance Learning Quality Assurance in Commonwealth Universities: a report and recommendations for QA and accreditation agencies and higher education institutions*, Commonwealth of Learning
- Lim C P, Chai C S and Churchill D 2010 *Leading ICT in Education Practices: A Capacity-Building Toolkit for Teacher Education Institutions in the Asia-Pacific*, Microsoft, Singapore
- McNaught C 2001 'Quality assurance for online courses: from policy to process to improvement?' proceedings of Meeting at the crossroads, Ascilite, Melbourne 2004: [www.ascilite.org.au/conferences/melbourne01/pdf/papers/mcnaughtc.pdf](http://www.ascilite.org.au/conferences/melbourne01/pdf/papers/mcnaughtc.pdf)
- Malaysian Qualifications Agency 2013 *Code of practice for open and distance learning* Petaling, Jaya
- Miller G, Benke M, Chaloux B, Ragan L and Schroeder R 2014 *Leading the e-learning transformation of higher education: meeting the challenges of technology and distance education*, Sterling, Virginia: Stylus Publishing, LLC in association with the Sloan Consortium
- Murray J 2013 *Quality Assurance in Qualifications Frameworks: an issues paper*, Quality and Qualifications Ireland and the European Commission
- OECD 2012 *Education at a Glance*, OECD Publishing. [http://dx.doi.org/10.1787/eag\\_highlights-2012-en](http://dx.doi.org/10.1787/eag_highlights-2012-en)
- Oliver, R 2001 *Assuring the Quality of Online Learning in Australian Higher Education* in Wallace M, Ellis A and Newton D (eds) proceedings of *Moving Online II Conference*, Lismore: Southern Cross University (pp. 222–231)
- Ossiannilsson E 2012 *Benchmarking e-learning in Higher Education: lessons learned from international projects*, doctoral dissertation, University of Oulu Graduate School, University of Oulu, Finland: <http://herkules.oulu.fi/isbn9789526200415/isbn9789526200415.pdf>
- Ossiannilsson E, Williams K, Camilleri A F and Brown M 2015 *Quality Models in Online and Open Education around the Globe: State of the Art and Recommendations*, ICDE Report Series
- Redpath, L 2012 'Confronting the Bias Against On-Line Learning' in *Management Education Academy Of Management Learning and Education*, 11(1) (pp. 125–140)
- Rekkedal, T and Qvist-Erksen, S 2004 'Student Support – a Critical Factor for Success' in *Design and Evaluation of an Integrated Student Support System for E-learning*
- Salmon G, 2014 'Learning Innovation: A Framework for Innovation' in *European Journal of Open, Distance and e-Learning* vol. 17, no. 2

Scriven, Michael 1991 Evaluation Thesaurus, Sage Publishing, USA

Spratt C, Weaver D, Maskill L, and Kish K, 2003 Online Pedagogy and the Challenges for Academic Staff Development, published online at [http://www.monash.edu.au/groups/ftt/eet/full\\_papers/spratt.pdf](http://www.monash.edu.au/groups/ftt/eet/full_papers/spratt.pdf)

Statutory Quality Assurance Guidelines for Flexible and Distributed Learning (White Paper) 2016 Quality and Qualifications Ireland

Stufflebeam, Daniel L and Zhang G 2017 The CIPP Evaluation Model: How to Evaluate for Improvement and Accountability, Guilford, USA

TEQSA Information Sheet: eLearning and compliance with the Threshold Standards <http://www.teqsa.gov.au/sites/default/files/TEQSAeLearningInformationSheet.pdf>

Teay S 2009 Quality Performance Management in Higher Education

The OLC Quality Scorecard Online Learning Consortium (former Sloan-C) US

United Nations 2010 The Millenium Goals: <http://www.un.org/millenniumgoals>

UNESCO 2016 Blended Learning for Quality Higher Education: Selected Case Studies on Implementation from Asia-Pacific <http://bangkok.unesco.org/content/blended-learning-quality-higher-education-selected-case-studies-implementation-asia-pacific>

UNESCO 2010 Education for all <http://www.unesco.org/en/efa/>

UNESCO 2014 Education Systems in ASEAN+6 Countries: A Comparative Analysis of Selected Educational Issues

Walsh P 2016 'Quality Assurance of Cross-border Higher Education – a case for collaboration between national quality agencies' in Cross-Border Higher Education and Quality Assurance, Rosa M J, Sarrico C, Tavares O and Amara A (eds) Issues in Higher Education series, Palgrave McMillan UK

Watkins R and Schlosser C 2000 'Capabilities-based educational delivery units: beginning a professional dialogue' in American Journal of Distance Education 14(3) (pp. 34–47)

Weber J M and Lennon R 2007 'Multi-course comparison of traditional versus web-based course delivery systems' in Journal of Educators Online 4(2)

Westman P 2009 'ELQ report: Policy Issues for Quality Assurance Agencies' National Agency for Higher Education (NAHE) Sweden, ENQA Workshop Quality Assurance of E-Learning

Woodhouse D, Keynote Address: 'Quality: Making a difference' <https://herdsa.org.au/system/files/Woodhouse.pdf>

Yelland R 2011 Academic Ranking and Quality Assurance in Online Education, Directorate for Education Presentation, Barcelona, OECD

Ziguras C and McBurnie G 2011 'International student mobility in the Asia-Pacific: from globalization to regional integration?' in Marginson S, Kaur S and Sawir E (eds) Higher Education in the Asia-Pacific, Strategic Responses to Globalization, Dordrecht: Springer